MINI PROJECT - WEEK 01

Topic – Applying Excel Functions, Conditional Formatting and Charts

Title: COVID-19 Global Dashboard — Regional Pandemic Analysis using Excel

Objective:

Act as a Junior Data Analyst working with a public health agency. Your task is to clean, analyze and visually present COVID-19 data using Excel functions, conditional formatting, and charts. Your goal is to identify patterns in the spread and recovery trends and communicate your findings in an easily understandable format.

Scenario:

The Global Health Insights (GHI) team is preparing a country-wise performance report on how different nations handled the COVID-19 pandemic during 2020–2021. You've been asked to use Excel tools and functions to analyze key indicators like active cases, recovery rates and death percentages using real-time data.

Dataset Columns:

Country

- Confirmed Cases
- Deaths
- Recovered
- Active Cases
- Population
- Continent
- Date of First Case

Task Breakdown:

1. Excel Functions for Insightful Calculations

- Calculate **Death Rate (%)** = Deaths / Confirmed Cases
- Calculate **Recovery Rate (%)** = Recovered / Confirmed Cases

Calculate **Infection Rate (%)** = Confirmed / Population Use IF and IFS to categorize countries as: High Risk (Death Rate > 5%)

Moderate Risk (2%–5%)

Low Risk (< 2%)

2. Conditional Formatting for Visual Analysis

Highlight countries with Death Rate > 5% in red

Use a 3-color **color scale** for Recovery Rate

Apply **data bars** to Infection Rate column

Use **icon sets** (up, sideways, down arrows) to show Death Rate categories

3. Chart Creation for Summary Visualization

Create a **Column Chart** showing Confirmed vs Recovered cases for top 10 countries

Add a **Line Chart** showing monthly case trends if time-based data is available

(Time-series trends require monthly/daily case data. Use this chart only if such data is available)

Create a **Pie Chart** showing continent-wise case distribution

Create a **Combo Chart**: Line for Death Rate, Column for Confirmed Cases